HD Digital Receiver

User's Manual

IR2000HD

The default password is 0000.

HUMAX

Notice

Thank you for purchasing a HUMAX product. Please read this user's manual carefully to be able to safely install, use and maintain the product at maximum performance. Keep this user's manual next to your product for future reference. The information in this user's manual is subject to change without notice.

Copyright (Copyright © 2011 HUMAX Corporation)

Not to be copied, used or translated in part or whole without HUMAX's prior consent in writing except approval of ownership of copyright and copyright law.

Warranty

The warranty does not cover parts which may become defective due to misuse of the information contained in this manual.

Trademarks

- Irdeto is a trademark of Irdeto Access B.V.
- Manufactured under license from Dolby Laboratories.
  Dolby and the double-D symbol are trademarks of Dolby Laboratories.
- HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks of registered trademarks of HDMI Licensing LLC.

Notice

Safety Warning

This product has been manufactured to comply with international safety standards. Please read the following safety precautions carefully.

Safety Instructions and Precautions

1. **MAINS SUPPLY**
   90-250V a.c., 50/60Hz
   - Operate this product only from the type of power supply indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your local power company.
   - Disconnect the product from the mains before you start any maintenance or installation procedures.

2. **OVERLOADING**
   - Do not overload a wall outlet, extension cord or adapter as this may result in electric fire or shock.

3. **LIQUID**
   - The product should not be exposed to liquid of any kind. In addition, no objects filled with liquid should be placed on the apparatus.

4. **CLEANING**
   - Disconnect the product from the wall outlet before cleaning.
   - Use a light damp cloth (no solvents) to dust the product.

5. **VENTILATION**
   - The slots on top of the product must be left uncovered to allow proper airflow into the unit.
   - Do not stand the product on soft furnishings or carpets.
   - Do not stack electronic equipments on top of the product.

6. **ATTACHMENTS**
   - Do not use any unsupported attachments as these may be hazardous or cause damage to the product.

7. **CONNECTION TO THE SATELLITE DISH LNB**
   - Disconnect the product from the mains before connecting or disconnecting the cable from the satellite dish. Failure to do so can damage the LNB.

8. **CONNECTION TO THE TV**
   - Disconnect the product from the mains before connecting or disconnecting the cable from the TV. Failure to do so can damage the TV.

9. **EARTHING**
   - The LNB cable must be earthed to the system earth for the satellite dish.

Safety Warning

10.LOCATION

- Place the product indoors to avoid exposing it to lightning, rain or sun.
- Do not place it near a radiator or heat register.
- Make sure it has more than 10 cm clearance from any appliances susceptible to electromagnetic influences, such as a TV or a VCR.
- Do not block the openings with any object, and do not place the product on a bed, sofa, rug, or other similar surface.
- If you place the product on a rack or a bookcase, ensure that there is adequate ventilation and that you have followed the manufacturer's instructions for mounting.
- Do not place the product on an unstable cart, stand, tripod, bracket, or table where it can fall.
- A falling product can cause serious injury to a child or adult, and serious damage to the appliance.

11.LIGHTNING, STORM OR NOT IN USE

- Unplug the product from the wall outlet and disconnect the antenna during a thunderstorm or when left unattended and unused for long periods of time. This will prevent damage to the unit due to lightning and power-surges.

12.EXTRANEOUS OBJECTS

- Do not insert anything through the openings in the unit, where they can touch dangerous voltage points or damage parts.

13.REPLACEMENT OF PARTS

- When replacement of parts is required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part. Unauthorized substitution may result in additional damage to the unit.

Safety Warning

<u>**Warning**</u>

The mains plug, as a disconnection device, shall remain readily accessible by the user.

1. **To avoid damage of the power cord or plug;**
   - Do not modify or process the power cord or plug arbitrarily.
   - Do not bend or twist the power cord.
   - Make sure to disconnect the power cord holding the plug.
   - Keep heating appliances as far as possible from the power cord in order to prevent the cover vinyl from melting.
   - The mains plug, as a disconnection device, shall remain readily accessible by the user.

2. **To avoid electrical shock;**
   - Do not open the main body.
   - Do not insert metal or inflammable objects inside the product.
   - Do not touch the power plug with wet hands.
   - Disconnect the power cord in case of lightning.

3. **To avoid damage of product;**
   - Do not use the product when it is out of order. If you continue to use the product when defective, serious damage can be caused to it. Make sure to contact your local product distributor if the product is out of order.
   - Do not insert metal or alien substance into the slots for the modules or Smartcards. It may cause damage to the product and reduce its life span.

Contents

1. Before Using the Product

This chapter provides detailed instructions on the product and its accessories.

1.1 Package Contents

Please check all package contents before using your product.
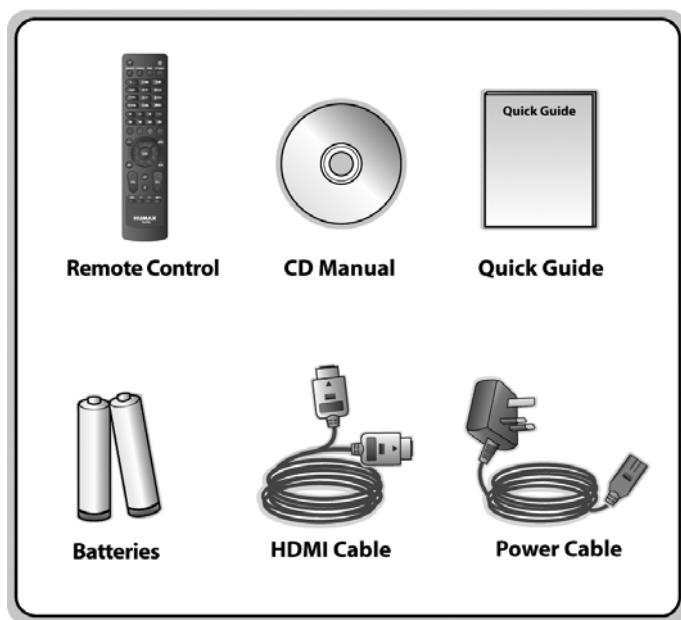
Note:

- Faults may occur if the remote control is left without battery for a long time. Always keep the battery inserted in the remote control.
- Package contents may vary according to area.

1. Before Using the Product

1.2 Front Panel

Open the right-hand flap on the front panel of the product to expose the card slot.
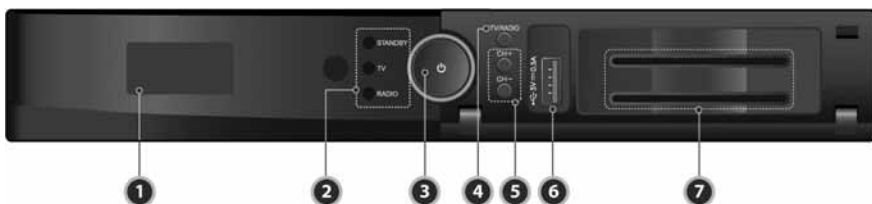
1. **STATUS DISPLAY**
   The product status is displayed.

2. **STANDBY/TV/RADIO LED**
   The light is emitted when the product is in each mode.

3. **STANDBY BUTTON**
   Switches between operation and standby modes.

4. **TV/RADIO BUTTON**
   Switches between TV and Radio modes.

5. **CH+/- BUTTONS**
   Changes the channel.

6. **USB PORT**
   Connect a USB storage device.

7. **SMARTCARD SLOTS**
   Slots for Smartcard

Note: The image shown may differ from the actual product.

1. Before Using the Product

1.3 Conditional Access

Although some TV and radio services are free to air, others are available on a subscription basis and can only be enjoyed via a Conditional Access component.

1. Inserting the Smartcard

The Smartcard looks similar to a credit card and is inserted into the slot behind the right-hand front flap of the product. A valid Smartcard entitles you to view and listen to all the channels you choose to subscribe to.

1. Open the right-hand flap on the front panel of the product to expose the card slots.
2. Hold the Smartcard horizontally with the electronic chip (small square-shaped, gold in colour) facing downwards.
3. Insert the Smartcard into the slot.

1. Before Using the Product

1.4 Rear Panel
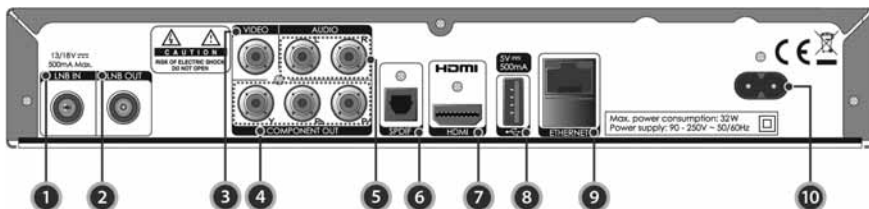
1. **LNB IN**
   Connect a satellite antenna cable.

2. **LNB OUT**
   Connect another digital satellite receiver.

3. **VIDEO**
   Use an RCA cable to connect to the TV or VCR.

4. **COMPONENT**
   Use a component cable to connect to the TV or VCR.

5. **AUDIO**
   Use an RCA cable to connect to the TV or VCR.

6. **SPDIF**
   Use an S/PDIF cable to connect to the audio system.(digital audio)

7. **HDMI**
   Use an HDMI cable to connect to the TV.

8. **USB Port**
   Connect a USB storage device.

9. **Ethernet Port**
   Connect a LAN cable.

10. **Power Cord**
   Connect to the power cord.

Note:

- The image shown may differ from the actual product.
- You can find the product serial number on the bottom of the product.

1. Before Using the Product

1.5 Remote Control

MUTE

Mutes audio.

STANDBY

Switches between operation and standby modes.

SOURCE

Currently not supported

TV/RADIO

Switches between TV and radio modes.

WIDE

Sets the display format.

V-FORMAT

Sets the resolution of video.

NUMERIC

(0-9)

TV Portal

Currently not supported

MENU

Displays the main menu.

Playback Control

► Play, ‖ Pause, ■ Stop, ● Record

◄◄ Rewind, ►► Fast Forward, ◄◄ Previous, ►► Next

COLOUR

Colour keys for interactive applications.

Note: The image shown may differ from the actual product.

1. Before Using the Product

MEDIA

Displays the media list.

GUIDE

Displays the programme guide.

ARROW

Moves the cursor up, down, left or right.

OK

Selects a menu or confirms a selection.

EXIT

Exits all On-Screen Display (OSD) screens.

BACK

Returns to the previous channel.

VOL +/-

Adjusts the audio volume.

LIST

Displays the channel list.

i

Displays the channel and programme information.

CH∧/∨

Changes the channel or page.

TEXT

Enters the digital text service.

◁? AUDIO

Displays the audio list.

▭ SUBTITLE

Displays the subtitle language list.

OPT+

Displays the channel's attributes.

2. Setup

This chapter describes how to connect your product to the TV with the particular equipments for gaining optimum signal quality. The product provides various interfaces to connect to the TV, VCR or other devices. Select the most appropriate procedure depending on the equipment you have.

Note: If you encounter any problems setting up your product, please contact your local product distributor

2.1 Connecting the TV and VCR

You can select one of the following antenna connections depending on the equipment you have.

1. Using HDMI Cable

The HDMI connection is recommended for Digital TV. In case the TV has a HDMI input connector, a special all-digital interface that provides the highest picture quality, connect the product and the TV using a HDMI cable as follows.
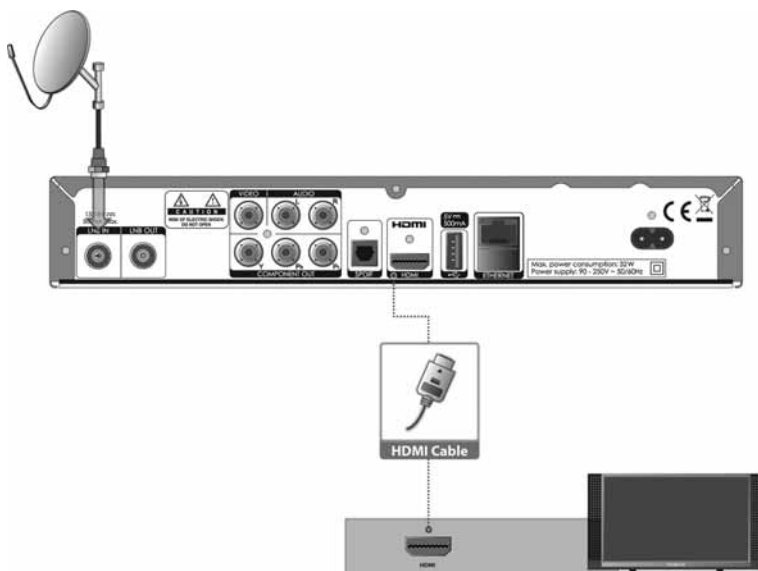
2. Setup

2. Using DVI Cable

The DVI connection using an HDMI to DVI converter is recommended for Digital TV. In case the TV has the DVI input connector only, connect the product to the TV with an HDMI cable using an HDMI to DVI converter as follows.

When equipped with an A/V receiver

1. Connect one end of the HDMI cable to the HDMI input on the product and the other end to the HDMI to DVI converter.
2. Connect the DVI converter to the TV.
3. Connect the product and the audio receiver that functions as a Dolby Digital decoder using an S/PDIF cable.
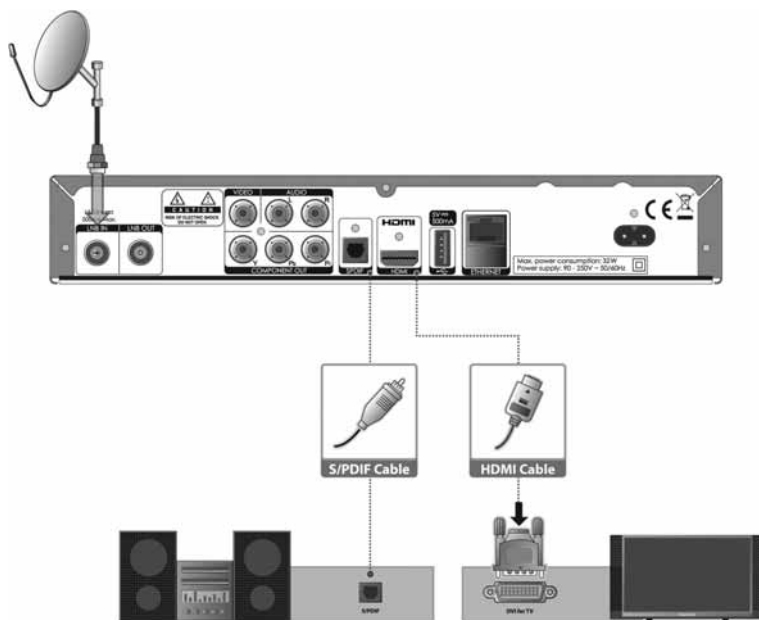
2. Setup

When there is no A/V receiver available

1. Connect the product and the TV using an RCA cable.
2. Connect one end of the HDMI cable to the HDMI input on the product and the other end to the HDMI to DVI converter.
3. Connect the DVI converter to the TV.
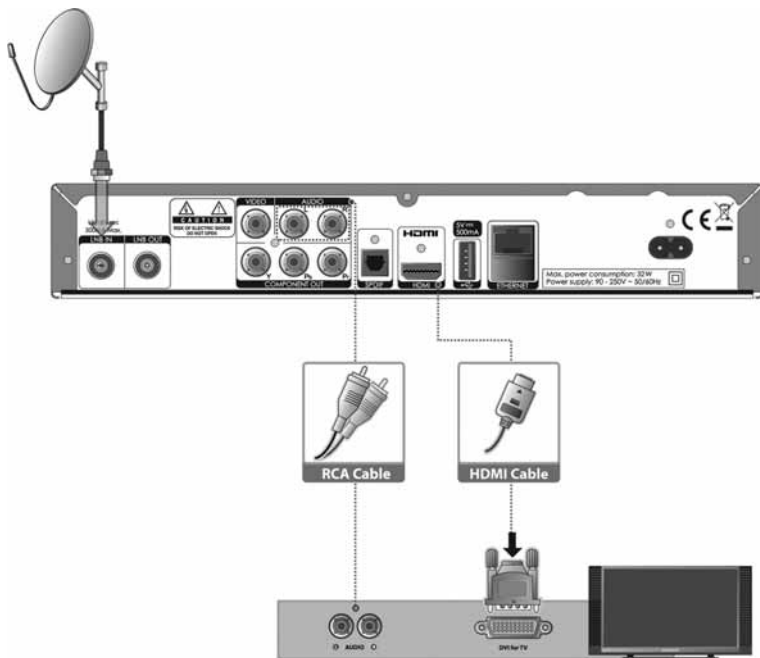
2. Setup

3. Using Component Cable

The component connection is recommended for Digital TV. Connect the product and the TV using a component cable as follows.

You can either:
- 1-1 Connect the product and the TV using an RCA cable (Audio L/R).
- 1-2 Connect the product and the audio receiver that functions as a Dolby Digital decoder using an S/PDIF cable.
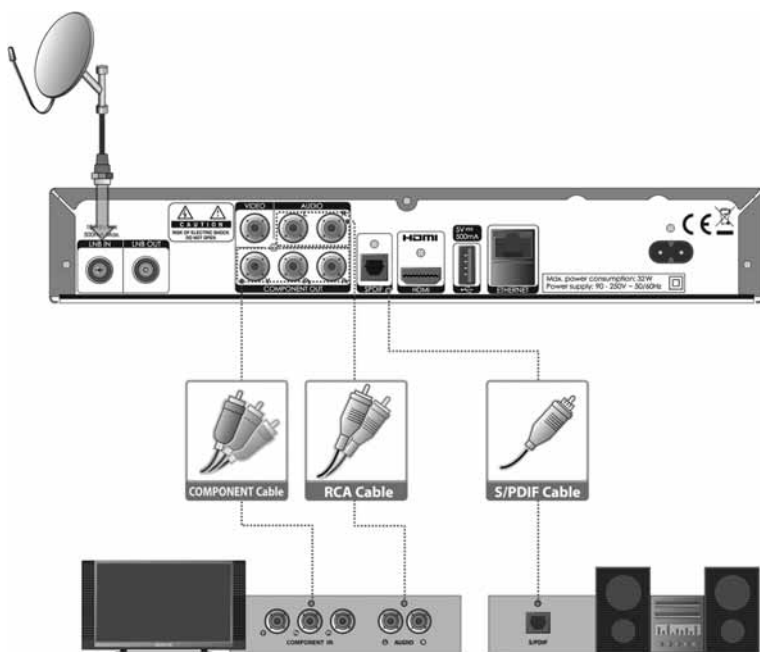
2. Setup

2.2 Powering On

1. Connect the power cord of the product to a wall outlet.
2. Power on by pressing the **STANDBY** button of the remote control or the **STANDBY** button at the front of the product.

Inserting Batteries

1. Press the hook upward and lift the battery cover off .
2. Insert the batteries matching the plus(+) and minus(-) at each end.
3. Close the cover.

3. Installation Wizard

When powering on your product for the first time after purchase, the installation wizard will operate automatically.

Tip: The default password is **0000**. If you have forgotten your password, please contact your local product distributor.

3.1 Language

Select your language.
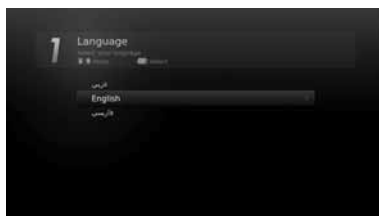
3.2 Display

Set the video output to your TV.

3.3 Time Zone

Select your country to determine the time zone.

3. Installation Wizard

3.4 Search Channels

Select a type of channel search.

- **Automatic Search:** Search all channels of NILESAT(7.0W) and BADR(26.0E) and HOT BIRD(13.0E) automatically.
- **Skip:** If you have SCD or Motor antenna, skip the search process and go to installation in Settings.
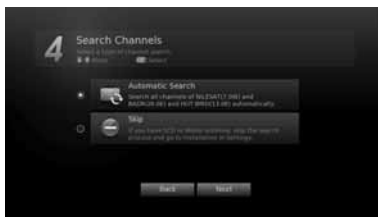
3.5 Automatic Search

Channel search will activate.

3.6 Results

The result of the installation wizard is shown. Select **Finish** to exit the wizard.
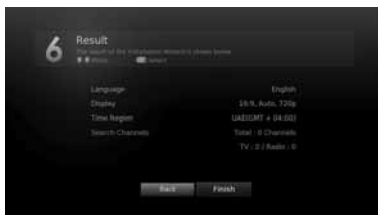
4. Basic Operation

This chapter describes the basic functions the product provides such as switching channel, volume control and other common features.

4.1 Switching Channel

You can switch the current channel by pressing the **CH**⋀⋁ button or entering the channel number directly using the **NUMERIC(0-9)** buttons.

4.2 Volume Control

Press the **VOL +/-** button to adjust the audio volume. Press the **MUTE** button to stop the audio temporarily.

4.3 Resolution

Press the **V-FORMAT** button while watching a programme. The current resolution will be displayed. Each time you press the **V-FORMAT** button, the resolution changes.

4.4 Wide

You can set the display format. Press the **WIDE** button while watching a programme to change the display format. Each time you press the **WIDE** button, the display format changes.

4.5 Audio

Press the **AUDIO** button and select the audio language you prefer. Select audio direction (left, right, stereo) using the ◀/▶ button.

4.6 Subtitle

Press the **SUBTITLE** button and select the required subtitle language and press the **OK** button. The subtitle will be displayed in the selected language at the bottom of the screen.

4. Basic Operation

4.7 Teletext

Press the **TEXT** button. To display the teletext menu, press the **MENU** button in teletext mode. Select the teletext function you want and press the **OK** button.

4.8 Programme Information (i-plate)

The i-plate is always displayed for a certain period of time whenever you switch channels. Press the **i** button while watching a programme. Press the **i** button again to view detailed information.

5. Channel List

The channel list will help you find the channel you want to watch quickly and easily.

You can access the channel list in several ways.

> Press the **LIST** button.

> Press the **MENU** button and select **Channel List**.

5.1 Changing Channels

Select the channel you want to watch and press the **OK** button.

Press the ▶ button and select a channel group.

Press the **RED** button to sort the list in numerical or alphabetical order.

Press the **GREEN** button and select the channel type.

5.2 Editing Channels in Channel List

1. Select a channel you want to edit and press the **YELLOW** button.

2. Select an option.
   - **Favourite**: Select a favourite group you want to include the channel in and press the **OK** button.
   - **Lock**: Select **On** or **Off**.
   - **Delete**: Press the **OK** button.
   - **Rename**: Press the **OK** button and enter the name in the keyboard.

3. Select **OK** to save and exit.
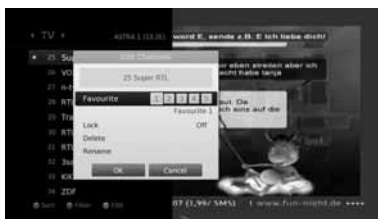
6. TV Guide

The TV guide is an on-screen guide of grid type which displays the programme information of channels in time and date order.

You can access the TV guide in several ways.

> Press the **GUIDE** button.

> Press the **MENU** button and select **TV Guide**.

6.1 Table Guide

You can view the programme information of all channels in time and date order.

Note:

- You can set recordings only when the external hard disk is connected.
- Press the **BLUE** button to list the channel of other groups.

6.2 Find

Find will help you find the programmes more specifically using the keyword or genre.

6.3 Schedule

Schedule lists reminders or recordings and will help you manage them in more detail.

7. Recording and Playback

When you connect the external hard disk, you can record programmes and play back the recorded programmes.

Note: Certain hard disk drives may not be recognized or function properly.

7.1 Recording

1. Instant Recording

To instantly record the current programme you are watching, press the **RECORD** button.

Press the **RECORD** button again channel to change the recording duration.

2. Scheduled Recording

❖ Select a future programme and press the **OK** button in **TV Guide**.

❖ Select **New Reminder** and press the **OK** button in **Schedule**.

❖ Press the **OK** button on a future programme in i-plate and select **Record**.

You can edit or delete your reservations in **Schedule**. To edit, select a reservation and press the **OK** button.
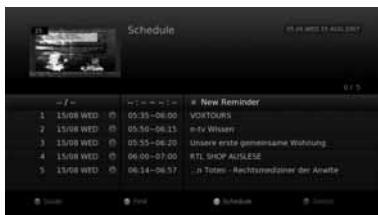
7. Recording and Playback

3. Recording Conflict

<u>Recording Duration Conflict</u>

When an instant recording conflicts with one of the previously set recordings you can cancel one of the previously set recordings.

<u>Watching Conflict</u>

When a scheduled recording starts on a different channel while you are watching a channel and recording another channel, a record notice will pop-up 30 seconds before the scheduled recording starts.

<u>Scheduling Conflict</u>

When a new scheduled recording conflicts with one of the previously set recordings (or reminders), select a programme you want to keep.

7.2 Playback

1. Playing Recordings

1. Press the **MENU** button and select **Video**.
2. Select a file and press the **OK** button. Playback will start.
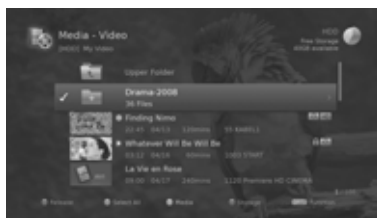
▶	Play
⏸	Pause the scene. Press the **Play** button to go back to play mode.
■	Stop the playback of the current file.
◀◀	Rewind
▶▶	Fast Forward
◀◀	Move to the previous chapter and replay the scenes.
▶▶	Move to the next chapter and skip scenes.
◀/▶	Jump to the previous or next scene.

8. Media List

You can retrieve video, music or photo files from the USB storage devices.

1. Press the **MENU** button and select **Video, Music** or **Photo**.
2. Press the **YELLOW** button to switch the media type.

Note: Certain hard disk drives may not be recognized or function properly.

8.1 Playing Files

1. Video

Select a file and press the **OK** or **PLAY** button.

To play multiple files successively, select the files using the **RED** button and press the **OK** or **PLAY** button.

2. Music Player

Select a file and press the **OK** or **PLAY** button.

The music player is displayed while playing the music files.

3. Photo Slide

Select a file and press the **OK** or **PLAY** button.

You can play music file during slideshow using the Slide Mode.

Press the **OPT+** button and select **Slide Mode**.

8. Media List

8.2 Editing Files

1. Press the **OPT+** button.
2. Select an option.

   > **Sort:** Press the **OK** button to sort the files in numerical or alphabetical order.

   > **Delete:** Press the **OK** button to delete the selected files

   > **Lock/Unlock:** Press the **OK** button and enter the password.

   > **Move:** Select the folder or storage you want to move the files to and press the **OK** button.

   > **Rename:** Press the **OK** button and enter the name in the keyboard.

   > **New Folder:** Press the **OK** button and enter the name of the folder in the keyboard.

9. Settings

9.1 Preferences

In this chapter you can set options for parental control, language, time, video, audio, recording and screen display.

1. Parental Control

Maturity Rating, Change STB Password
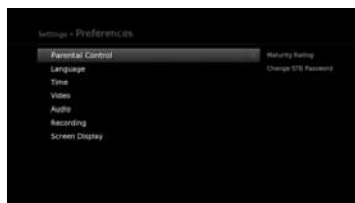
2. Language

System Language, Audio Language, Subtitle Language

3. Time

Power On Timer, Channel, Volume, Repeat, Power Off Timer

4. Video

Screen Ratio, Display Format, Letter & Pillar Box Colour

5. Audio

Digital Audio Output, Lip-Sync

6. Recording

Start Padding Time, End Padding Time, Instant Replay Time, Skip Forward Time

7. Screen Display

Info Display Time, Transparency, Subtitle Font

9. Settings

9.2 Edit Channels

In this chapter you can edit all channels in the channel list or make changes to the favourite lists of the channels you have chosen.

1. Edit Channel List

You can delete, move, lock or rename multiple channels.
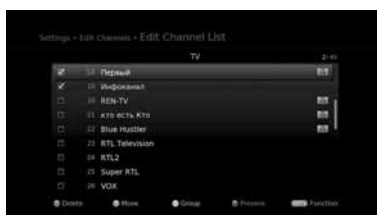
2. Edit Favourite List

You can add or remove channels from the favourite groups.

3. Import/Export Channels

The channel data can be imported from the USB to the receiver or exported from the receiver to a USB device (such as USB memory stick). The file format of the channel data is .udf format.
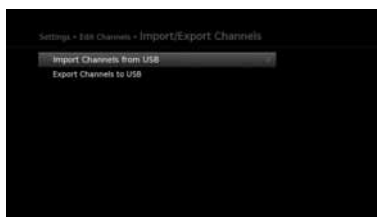
9. Settings

9.3 Installation

Installation menu allows you to configure your antenna and search the available TV and radio channels. Software update and default setting are also available in this section.

MENU -> Settings -> Installation

Press the **RED** button and select your antenna type.

> **Fixed Antenna - SCD Antenna - Motor Antenna**

1. Search Channels (Fixed Antenna)

MENU -> Setting -> Installation -> Search Channels

1. Select **LNB Onl**y or **DiSEqC**.
2. Set the satellite by selecting a satellite figure and press the **OK** button.

   > **Satellite:** Select the satellite.
   > **LNB Frequency:** Select the LNB frequency.
   > **22kHz Tone:** Select **On** when using a 22kHZ tone switch box.
   > **DiSEqC:** Select the DiSEqC switch.
   > **Test Transponder:** Check the signal status of each transponder and select the one with the best quality.
3. Set the transponder by selecting **Transponder.**
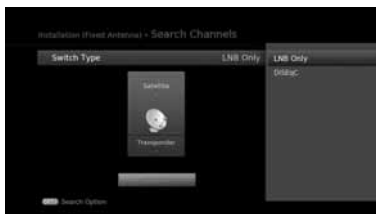
9. Settings

2. Search Channels (SCD Antenna)

MENU -> Installation -> Search Channels

1. Select **SCD Setting**.

   > **Tuner1**: Select from Channel 1~8.

   > **Frequency**: The frequency is set based on the channel of tuner1.

2. Set the satellite by selecting a satellite figure and press the **OK** button.

   > **Satellite**: Select the satellite.

   > **LNB Frequency**: Select the LNB frequency

   > **Test Transponder**: Check the signal status of each transponder and select the one with the best quality.

3. Set the transponder by selecting **Transponder**.

9. Settings

3. Search Channels [Motor Antenna]

MENU -> Setting -> Installation -> Search Channels

1. **Motor Setting**: Set the type and location of your motor.
2. **Edit Satellite Data**: Select the satellites that the motor antenna is pointing to.
3. **Position Setting**: Set your antenna position for the selected satellites.
4. **Limit Setting**: Set the operation limit of your motor. 5. Select a satellite figure and select a satellite you want to search. 6. Set the transponder by selecting **Transponder**.
5. Select a satellite figure and select a satellite you want to search.
6. Set the transponder by selecting **Transponder**.
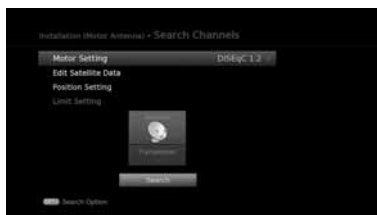
9. Settings

4. Software Update

In order to maintain proper performance of the product, it is essential to have the most up-to-date software. Visit the HUMAX website to check the latest news and newly released software versions. *(http://www.humaxdigital.com)* It is recommended that you periodically check for the availability of software update.

OTA, an abbreviation of **Over–the-Air**, means that the software can be downloaded through your aerial.

You can also search and download new software manually.

MENU -> Setting -> nstallation -> Software Update

1. Automatic Update

When new software is detected, select **Yes** to start the update process now.

2. Manual Update

Enter the value for *Satellite, Frequency, Polarzation, Symbol Rate* and *FEC*.
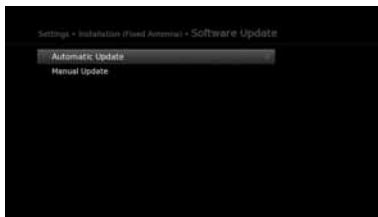
5. Factory Default

MENU -> Setting -> Installation -> Factory Default

You can restore the product to the factory default.
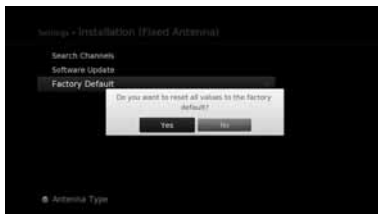
9. Settings

9.4 System

1. System Information

The system information is displayed.
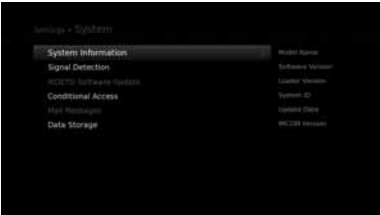
2. Signal Detection

You can check the signal strength and quality of the searched channels.

3. IRDETO Software Update

When the Over-The-Air is available, **IRDETO Software Update** is activated.

4. Conditional Access

You can view the Smartcard information.

5. Mail Messages

You can receive mail sent by the broadcasting company.

6. Data Storage

You can check the size of the external USB storage devices.

10. Appendix

10.1 Specification

Tuner & Channel	
No of Tuners	1
Input Connector	F-Type, IEC 169-24, Female
Frequency Range	950 MHz to 2150 MHz
Signal Level	-25 to -65 dBm
LNB Power & Polarisation	Vertical : +13.5 V
	Horizontal : +18 V
	Current : Max. 500 mA (Overload protection)
22 KHz Tone	Frequency : 22 ± 4KHz
	Amplitude : 0.7 ± 0.2V
DiSEqC Control	Version1.0, 1.2, USALS, Compatible
Demodulation	QPSK
	DVB-S: Compliant to EN300 421
	DVB-S2: Compliant to EN302 307
Input Symbol Rate	DVB-S: 2 - 45 Ms/s
	DVB-S2: 10 - 30 Ms/s (QPSK)
FEC Mode	DVB-S: Auto, 1/2, 2/3, 3/4, 5/6, 7/8
	DVB-S2: Auto, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
MPEG Transport Stream A/V Decoding	
Transport Stream	MPEG-2 ISO/IEC 13818
	MPEG-4 PART2
Profile Level	MPEG-2 MP@ML
	MPEG-4 AVC/H.264 HP@L4
Video Format	4:3, 16:9 Letter box
Video Resolution	576i, 576p, 720p, 1080i
Audio Decoding	MPEG/MusiCam Layer I, II & III
Audio Mode	Single/Dual Mono/Joint stereo/Stereo

10. Appendix

Memory	
Flash Memory	32 MB
RAM	256 MB
EEPROM	8 KB
Audio/Video/Data In/Out	
Video	RCA-Type(CVBS), YPbPr(RCA), HDMI/HDCP
Audio	Audio L/R, S/PDIF(Digital Audio Output)
Data Port	
USB	USB 2.0 Host (5 V --- 500 mA Max.)
Power Supply	
Input Voltage	AC 90-250 V a.c., 50/60 Hz
Type	SMPS
Power Consumption	Max. 32 W
Protection	Separate internal fuse. The input should be protected against lightning.
Physical Speci cation	
Size	280 mm × 45 mm × 200 mm
Weight (Net)	1.5 Kg
Operating Temp	0 ºC to +45 ºC
Storage Humidity	-10 ºC to +70 ºC

10. Appendix

10.2 OPEN SOURCE SOFTWARE NOTICE

HUMAX products use certain open source operating system software distributed pursuant to GNU GENERAL PUBLIC LICENSE Version 2 and GNU LESSER GENERAL LICENSE Version 2.1 each as defined and published by the Free Software Foundation, Inc.

The following GPL and LGPL software source codes used in this product can be provided. Please contact us at gnu@humaxdigital.com.

GPL Software

linux

busybox

avinfo

e2fsprogs

> This package, the EXT2 filesystem utilities, are made available under the GNU Public License version 2, with the exception of the lib/ext2fs and lib/e2p libraries, which are made available under the GNU Library General Public License Version 2, the lib/uuid library which is made available under a BSD-style license and the lib/et and lib/ss libraries which are made available under an MIT-style license.

LGPL Software

uClibc

libexif

id3lib

FreeType License (FTL) Software

freetype

> Portions of this software are copyright # <2007> The FreeType Project (www.freetype.org).

> All rights reserved.

10. Appendix

The GNU General Public License (GPL)

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.

51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA

Everyone is permitted to copy and distribute verbatim copies

of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things. To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) o er you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modi ed by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not re ect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

10. Appendix

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".
    Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program. You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

    a. You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

    b. You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

    c. If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

10. Appendix

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:
   a. Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
   b. Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
   c. Accompany it with the information you received as to the o er to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an o er, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.
If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

10. Appendix

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.
If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.
It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.
This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

10. Appendix

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

10. Appendix

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

One line to give the program's name and a brief idea of what it does.

Copyright (C) yyyy name of author

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'. This is free software, and you are welcome to redistribute it under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items-whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program `Gnomovision' (which makes passes at compilers) written by James Hacker.

signature of Ty Coon, 1 April 1989

Ty Coon, President of Vice

10. Appendix

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Library General Public License instead of this License.

GNU Lesser General Public License (LGPL)

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc. 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you rst think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

10. Appendix

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

10. Appendix

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

   A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables. The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

   "Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

   Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library. You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

   a. The modified work must itself be a software library.

   b. You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

   c. You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

   d. If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

GB 46

10. Appendix

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.
Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.
This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.
If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

10. Appendix

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.
You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

   a. Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

   b. Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

    c. Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

    d. If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

    e. Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

    a. Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

    b. Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Appendix

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.
If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.
It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice. This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.
Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

10. Appendix

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

one line to give the library's name and an idea of what it does.> Copyright (C) year name of author

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

10. Appendix

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

signature of Ty Coon, 1 April 1990

Ty Coon, President of Vice